

REMARKS

The present response is to the Office Action mailed in the above-referenced case on September 07, 2006, made final. Claims 1-35 are standing for examination. The Examiner has maintained the rejection of claims 1-35 under 35 U.S.C. 103(a) as being unpatentable over Simons et al. (US 6,332,198) hereinafter Simons, in view of Zadikian et al. (US 6,724,757) hereinafter Zadikian. The Examiner also rejects claims 1-35 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

In response, applicant herein amends the independent claims to positively recite how the software data is distributed between APS modules. Applicant provides further arguments to overcome the rejections of the claims on their merits. Applicant's arguments will clearly distinguish applicant's patentable subject matter over the combined teachings of Simons and Zadikan.

Regarding the 112 rejection, the Examiner states that the specification fails to describe limitations in claims 1, 12 and 24 "that all application-dependent data resides locally in software of individual APS modules".

Applicant herein amends the claims to recite; " characterized in that all of the APS software-dependent data resides locally in APS software of each individual APS module, and further characterized in that APS interface relocation from a primary interface to a backup interface is performed, via said software, through direct communication between the APS client modules running on the processors supporting the involved interfaces, and all of the required communication between distributed APS client modules are completed to perform a switchover within a 50 millisecond time window required by APS protocol.

Applicant's specification clearly teaches said limitation below as follows:

"It is a goal of the present invention to provide a unique distributed APS software suite that will operate with multiple-processor routers, wherein all of the required communication between distributed APS components can be completed to perform a

switchover within the 50 millisecond time window provided by APS protocol." (pg 11, lines 7-12)

"An APS client (APS CL) 213 is provided as a distributed component of the novel APS software of the present invention and is implemented in this example on both LCs 205 and 204. Because LC 205 is a primary line card (PLC) and LC 204 is a backup card (BLC) in this example, APS CL 213 on LC 205 is appropriately designated as a primary APS client (PAC) and APS CL 213 on LC 204 is appropriately designated as a backup APS client (BAC). Backup designation simply refers to the fact that LC 204 supports the designated POS interface that provides the backup services for all of the primary lines of group 207. It is noted herein that the above-described configurations can be changed at any time by an administrator without having to redistribute instances of APS CL or IFMC. Each instance of APS CL is identical in capability to every other instance. The same is true with instances of IFMC." (pg 14 line 26 to pg. 15 line 10)

"IFMC 305 is responsible for saving a copy of POS configuration and state information locally so that the information can be fed into a POS device on demand. As such, IFMC 305 is responsible for saving state updates on a particular POS device wherein the updates are received from IFMS 306. In addition, IFMC 305 receives configuration data for all APS groups that have a primary or backup POS interface residing on that particular hosting line card." (pg.20 lines 3-9)

Applicant argues that all of the software and data needed to perform automatic protection switching (APS) is distributed as claimed. Applicant respectfully request the Examiner give patentable weight to applicant's limitations, as amended.

Applicant has shown via portions of the specification that the limitations are clearly taught and enabled. The distributed software modules are identical and they perform the APS when needed within the 50 millisecond protocol requirement. The application is to provide APS and it is clearly taught in applicant's specification that APS is performed by APS modules via software local to the APS modules.

Simons teaches that all application-dependent data resides in **memory 40** and **not** in software of **each individual APS module** (col. 19, lines 32-37). Applicant stresses that because in Simons, information and communication needed to facilitate true APS is not stored locally in software of each individual APS module, as in applicant's invention and claims, the 50 millisecond time frames could not be accomplished as claimed. Applicant therefore strongly maintains that Simon suffers from network data flow interruption because true APS is not accomplished. In applicant's invention each instance of APS CL is identical in capability to every other instance. The same is true with instances of IFMC (P. 14, line 26 to p. 15, line 10).

The Examiner retains the art of Zadikian to teach a 50 millisecond switchover, stating that Zadikian teaches a network element capable of performing routing functions that support simple provisioning and fast restoration (50ms). Applicant argues that what Zadikian actually discloses is that the scheme allows the line cards to select between the two copies of the group matrix without CPU intervention, which helps ensure 50-millisecond switchover.

Further, Zadikian facilitates switchover from a main processor, and neither of the software intelligence or application dependant data is stored locally, that is in each individual APS module, as is taught in applicant's invention and claims as amended. Therefore, applicant strongly believes that the fact that Zadikian's scheme helps ensure (not consistently achieves or supports) 50-millisecond switchover in a single processor implementation, it certainly would not obviate a 50-millisecond switchover in a distributed processor environment as taught in Simons. Simply because the Examiner has produced art teaching that a 50-ms switchover exists (in questionable analogous art) does not teach or suggest 50ms switchover in a distributed processing system, as taught in applicant's invention as claimed.

Applicant therefore believes that claims 1, 12 and 24 as amended and argued by applicant are now clearly and unarguably patentable over the art of Simon and Zadikian, either singly or combined. Claims 2-11, 13-23, and 25-35 are then patentable on their own merits, or at least as depended from a patentable claim.

As all of the claims as amended and argued are clearly shown to be patentable over the prior art, applicant respectfully requests that the rejections be withdrawn and that the case be passed quickly to issue. If any fees are due beyond fees paid with this response, authorization is made to deduct those fees from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.

Respectfully Submitted,
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